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Date of Deposit: **SEPTEMBER 9, 2004**

I hereby certify that this correspondence/mailing (*) is being deposited with the United States Postal Service with sufficient postage as "EXPRESS MAIL Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to:

**MAIL STOP ISSUE FEE
APPLIC. NO: 10/075,060
COMMISSIONER FOR PATENTS
P. O. BOX 1450
ALEXANDRIA, VA 22313-1450**

Signature: 
GABE CHERIAN

Typed or printed name of person signing Certificate

(*) This correspondence/mailing contains the following submitted documents:

1. A copy of **NOTICE OF ALLOWANCE AND FEE(S) DUE, Date Mailed 06/23/2004. [10 pages]**.
2. My Response to the above Notice of Allowance, with Amended Claims and Drawings, etc, under C.F.R. § 1.312, dated September 9, 2004. **[16 pages]**.
3. PART B – FEE(S) TRANSMITTAL Form, which is a part of the NOTICE OF ALLOWANCE AND FEE(S) DUE **[1 page]**.
4. Form 2038 Credit Card Payment, for the Issue Fee of **\$695.00 [1 page]**.
5. Drawings: Figs. 1 through 72 **[72 sheets]**
6. Specification with hand written amendments, in red **[92 sheets, marked as pages 1 through 103]**.
7. A **CLEAN COPY** of the Specification **[92 sheets, marked as pages 1 through 103]**.
8. This Certificate of Express Mailing. **[1 page]**.
9. A stamped, self-addressed postcard with a detailed list of mailed documents. **[1 card]**.

All the above relates to the following:

Utility Patent Application No. **10/075,060**

Filed on **02/11/2002**

Title of Invention: **INTERCONNECTIONS**

Name of Inventor: **GABE CHERIAN**

Address: 201 Bluebell Road, P.O. Box 1335, Sun Valley, ID 83353, USA

Telephone: 1-208-622-7020

Notice of Allowability



Application No.

10/075,060

Examiner

Lee Calvin

Applicant(s)

CHERIAN, GABE

Art Unit

2825

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Election dated 5/18/04.
2. ☒ The allowed claim(s) is/are 9-13.
3. ☒ The drawings filed on 11 February 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date hereto
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other MARKED UP COPY OF EXAM. AMDT.

Mark R. Smith
PATENT EXAMINER
SUPERVISOR, PATENT EXAMINER
TECHNOLOGY CENTER 2000

OFFICE ACTION

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312.

IN THE DRAWINGS: Figures 2 and 3 have been labeled "Prior Art" because they show a "conventional way of making leaded packages" (as described in page 32).

IN THE CLAIMS: Claims 1-8 have been canceled because they were non-elected without traverse.
Claim 9, line 6, deleted "C) using"

2. Authorization for this examiner's amendment was given in a telephone interview with Gabe Cherian on June 14, 2004.

Allowable Subject Matter

3. Claims 9-13 are allowed. Following is the reason for allowance:

US 6,300,687 to *Bertin et al* discloses that a connecting element 55, with a stem between two ends, is crossing over between first and second electronic components, and connecting each contact pad of the first and second electronic components [Figs. 18-20]. US 2003/0107131 to *Higashi et al* discloses flexible wire bondings or connecting elements 12 that join together first and second contact pads of electronic components [Fig. 8 and page 4]. However, none of the cited arts teaches or suggests, *inter alia*, that connecting elements comprise means to prevent any materials from migrating away from joints at the ends of the connecting elements towards the center of the connecting elements along the stem of the connecting elements, and/or from attaching themselves to the stems.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication from the Examiner should be directed to *Calvin Lee* at (571) 272-1896, Monday to Thursday, from 7 to 5 (ET). If attempts to reach the examiner by telephone are unsuccessful, Art Unit 2825's Supervisory Patent Examiner *Matthew Smith* whose telephone number is (571) 272-1907. Any inquiry relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0596. The fax phones are (703) 872-9318 for regular communications and (703) 872-9319 for After-Final communications.

C
June 14, 2004

Matthew Smith
MATTHEW SMITH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

| | | | |
|--------------------------|------------------------|---------------------|-----|
| Interview Summary | Application No. | Applicant(s) | |
| | 10/075,060 | CHERIAN, GABE | |
| | Examiner | Art Unit | (6) |
| | Lee, Calvin | 2825 | |

All participants (applicant, applicant's representative, PTO personnel):

(1) Lee Calvin. (3) _____.

(2) Gabe Cherian. (4) _____.

Date of Interview: 14 June 2004.

Type: a) ☒ Telephonic b) ☐ Video Conference
c) ☐ Personal (copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☐ Yes e) ☒ No.
If Yes, brief description: _____.

Claim(s) discussed: 1-9.

Identification of prior art discussed: _____.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: Claims 1-8 have been canceled because they were non-elected without traverse. Claim 9, line 6, deleted "C) using".

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

Examiner's signature, if required

| | | | |
|-----------------------------------|---------------------------------------|--|-------------|
| Notice of References Cited | Application/Control No. 10/075,060 | Applicant(s)/Patent Under Reexamination CHERIAN, GABE | |
| | Examiner Lee, Calvin | Art Unit 2825 | Page 1 of 1 |

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U.S. PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Name | Classification |
|---|---|--|-----------------|----------------|----------------|
| * | A | US-6,300,687 | 10-2001 | Bertin et al. | 257/784 |
| * | B | US-2003/0107131 | 06-2003 | HIGASHI et al. | 257/735 |
| | C | US- | | | |
| | D | US- | | | |
| | E | US- | | | |
| | F | US- | | | |
| | G | US- | | | |
| | H | US- | | | |
| | I | US- | | | |
| | J | US- | | | |
| | K | US- | | | |
| | L | US- | | | |
| | M | US- | | | |

FOREIGN PATENT DOCUMENTS

| * | | Document Number Country Code-Number-Kind Code | Date MM-YYYY | Country | Name | Classification |
|---|---|--|-----------------|---------|------|----------------|
| | N | | | | | |
| | O | | | | | |
| | P | | | | | |
| | Q | | | | | |
| | R | | | | | |
| | S | | | | | |
| | T | | | | | |

NON-PATENT DOCUMENTS

| * | | Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages) |
|---|---|---|
| | U | |
| | V | |
| | W | |
| | X | |

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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Form PTO-948 (Rev. 06/03)

Application No. 10/075,060U.S. DEPARTMENT OF COMMERCE
U.S. Patent and Trademark Office

NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

The drawing(s) filed (insert date) 2-11-02 are:

- A. ☐ approved by the Draftsperson under 37 CFR 1.84 or 1.152.
 B. ☒ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reasons indicated below. Corrected drawings are required.

1. DRAWING 3. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink or Color (3 sets required).

Color drawings are not acceptable until petition is granted. Fig(s) _____

Pencil and non black ink not permitted. Fig(s) _____

2. PHOTOGRAPHS. 37 CFR 1.84(b)

One (1) full-tone set is required. Fig(s) _____

Photograph may not be mounted. 37 CFR 1.84(e)

Photograph must meet paper size requirements of

37 CFR 1.84(f). Fig(s) _____

Poor quality (half-tone). Fig(s) _____

3. TYPE OF PAPER. 37 CFR 1.84(c)

Paper not flexible, strong, white, and durable.

Fig(s) _____

Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted.

Fig(s) _____

4. SIZE OF PAPER. 37 CFR 1.84(d): Acceptable sizes:

21.0 cm by 29.7 cm (DIN size A4) or

21.6 cm by 27.9 cm (8 1/2 x 11 inches)

All drawing sheets not the same size.

Sheet(s) _____

Drawings sheets not an acceptable size. Fig(s) _____

5. MARGINS. 37 CFR 1.84(g): Acceptable margins:

Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm

Margins not acceptable. Fig(s) _____

Top (T) _____

Left (L) _____

Right (R) _____

Bottom (B) _____

6. VIEWS. 37 CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes, e.g., if Fig. 1 is changed to Fig. 1A, Fig. 1B and Fig. 1C, etc., the specification, at the Brief Description of the Drawings, must likewise be changed.

Views not labeled separately or properly.

Fig(s) 2, 23, 29, 41, 42, 47, 48, 55, 56

7. SECTIONAL VIEWS. 37 CFR 1.84(h)(3)

Sectional designation should be noted with

Arabic or Roman numbers. Fig(s) _____

8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)

Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____

9. SCALE. 37 CFR 1.84(k)

Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction.

Fig(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)

Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality). Fig(s) 1-72

11. SHADING. 37 CFR 1.84(m)

Solid black areas pale. Fig(s) _____

Solid black shading not permitted. Fig(s) 18

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)

Numbers and reference characters not plain and legible. Fig(s) 22-26, 29, 41-43, 51, 56

Figure legends are poor. Fig(s) 1-72

Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(1)

Fig(s) _____

English alphabet not used. 37 CFR 1.84(p)(2)

Fig(s) _____

Numbers, letters and reference characters must be at least 32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3). Fig(s) _____

13. LEAD LINES. 37 CFR 1.84(q)

Lead lines missing. Fig(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(r)

Sheets not numbered consecutively, and in Arabic numbers beginning with number 1. Sheet(s) _____

15. NUMBERING OF VIEWS. 37 CFR 1.84(u)

Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____

16. DESIGN DRAWINGS. 37 CFR 1.152

Surface shading shown not appropriate.

Fig(s) _____

Solid black surface shading is not permitted except when used to represent the color black as well as color contrast. Fig(s) _____

COMMENTS: FIG. 50 IS NOT LABELED
 * REMOVE GRAPH LINES FROM FIG. 61, 63, 66, 67A, 67B

Reviewer J. HASE

If you have questions, call (703) 305-8404.

Date 6-15-04

Attachment to Paper No. _____

BEST AVAILABLE COPY